

**SOFTWARE-BASED SPECULATIVE PRE-COMPUTATION AND  
MULTITHREADING**

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**ABSTRACT OF THE DISCLOSURE**

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Speculative pre-computation and multithreading (SP), allows a processor to use spare hardware contexts to spawn speculative threads to very effectively pre-fetch data well in advance of the main thread. The burden of spawning threads may fall on the main thread via basic triggers. The speculative threads may also spawn other speculative threads via chaining triggers.